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Volume 1, GENERAL WELDING STANDARDS

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RECORD OF REVISIONS

| Rev | Date | Description | POC | OIC |
|-----|---------|----------------|-----------------------------------|-----------------------------------|
| 0 | 8/16/04 | Initial issue. | Kelly Bingham, <i>FWO-DECS</i> | Gurinder Grewal, <i>FWO-DO</i> |

Contact the Welding Standards POC for upkeep, interpretation, and variance issues.

| | |
|-----------------|---|
| GWS 1-10 | Welding POC/Committee http://www.lanl.gov/f6stds/pubf6stds/engrman/HTML/poc_techcom1.htm#weld |
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GWS 1-10 TRAINING

1.0 PURPOSE AND SCOPE

- A. The purpose of this procedure is to provide for development, implementation and administrative control for personnel training in support of the LANL Welding Program.
- B. The scope of this procedure covers the requirements and curricula of welding and technical training provided for welders and other personnel (employee or subcontractors) working on LANL property within the scope of the Welding Program as defined in GWS 1-02.

NOTE: This procedure shall be applied in conjunction with GWS 1-05, Welder Performance Qualification and Certification (Reference 1) for welder qualification and certification

2.0 REFERENCES

- 1. GWS 1-05, Welder Performance Qualification & Certification.

3.0 ACRONYMS AND DEFINITIONS

| Acronym / Term | Description |
|----------------|--|
| FWO | Facility and Waste Operations |
| GWS | General Welding Standards |
| IQMG | Institutional Quality Management Group |
| LANL | Los Alamos National Laboratory |
| SSS | Site Services Subcontractor |
| WPA | Welding Program Administrator |

4.0 GENERAL

4.1 Responsibilities

- A. Welding training curricula will be regularly reviewed to incorporate latest industry practices as reflected in national codes and standards and to maintain current with job requirements. Welding safety shall be an integral part of all training.
- B. The training resources and facilities of the **Site Services Subcontractor (SSS)** may be utilized in support of this procedure and the LANL Welding Program.
- C. The **LANL WPA** is responsible for establishment of welding training program requirements in support of the LANL Welding Program.
- D. The WPA may delegate to the **Site Services Subcontractor (SSS)** development of the welding training program, course outline, and lesson plans, and for instruction of courses in support of the LANL Welding Program. This includes developing schedules, coordinating personnel, providing class rosters, advertising classes, and issuing certificates.
- E. The **LANL PS-1 Institutional Quality Management Group (IQMG)** is responsible for auditing and verifying activities and records in accordance with this procedure.

5.0 PROCEDURE

5.1 Training Categories

The following general categories (A through D) of welding training shall be made available to LANL SSS craft personnel, and other non-manual personnel working at LANL.

- A. Welding Skills Training: Designed to instruct basic skills or to upgrade existing skills for welding personnel with the objective of producing certified welders in accordance with applicable codes and standards.
- B. Technical Training: Designed to instruct the theory and technology of welding and related subjects through short courses for designers, inspectors, qualified welders, craft supervision, and selected non-manual personnel. Technical training includes material selection, material control, process selection, in-process welding control, qualification, and verification of quality.
- C. Field Training: Designed to instruct welders and supervision in special techniques, equipment, procedures, material control, etc.
- D. Specialized Training: Designed to instruct qualified welders in specific techniques, such as utilizing automated or semi-automated equipment, the application of special welding procedures for exotic, reactive materials, or precision materials, or fabrication techniques for vacuum technology.

5.2 Training Schedules/Attendance

- A. The LANL WPA shall ensure regularly scheduled welding classes (typically conducted by the SSS) are posted on the LANL intranet and are available for online registration.
- B. Participation in welding training shall be at the recommendation and/or acceptance of the responsible Supervisor.

5.3 Skills Development

- A. The training curriculum presented in Attachment 1, *Typical Welding Skills Training Curriculum* shall be used as a basis in developing and promoting welder skills and qualifications.

5.4 Training Personnel Qualification

- A. The LANL Welding Program Administrator (WPA) shall assure that each instructor performing welding training at LANL is qualified in the positions and processes for which they will teach.

6.0 ATTACHMENTS

Attachment 1: Typical Welding Skill Training Curriculum & Typical Technical Training